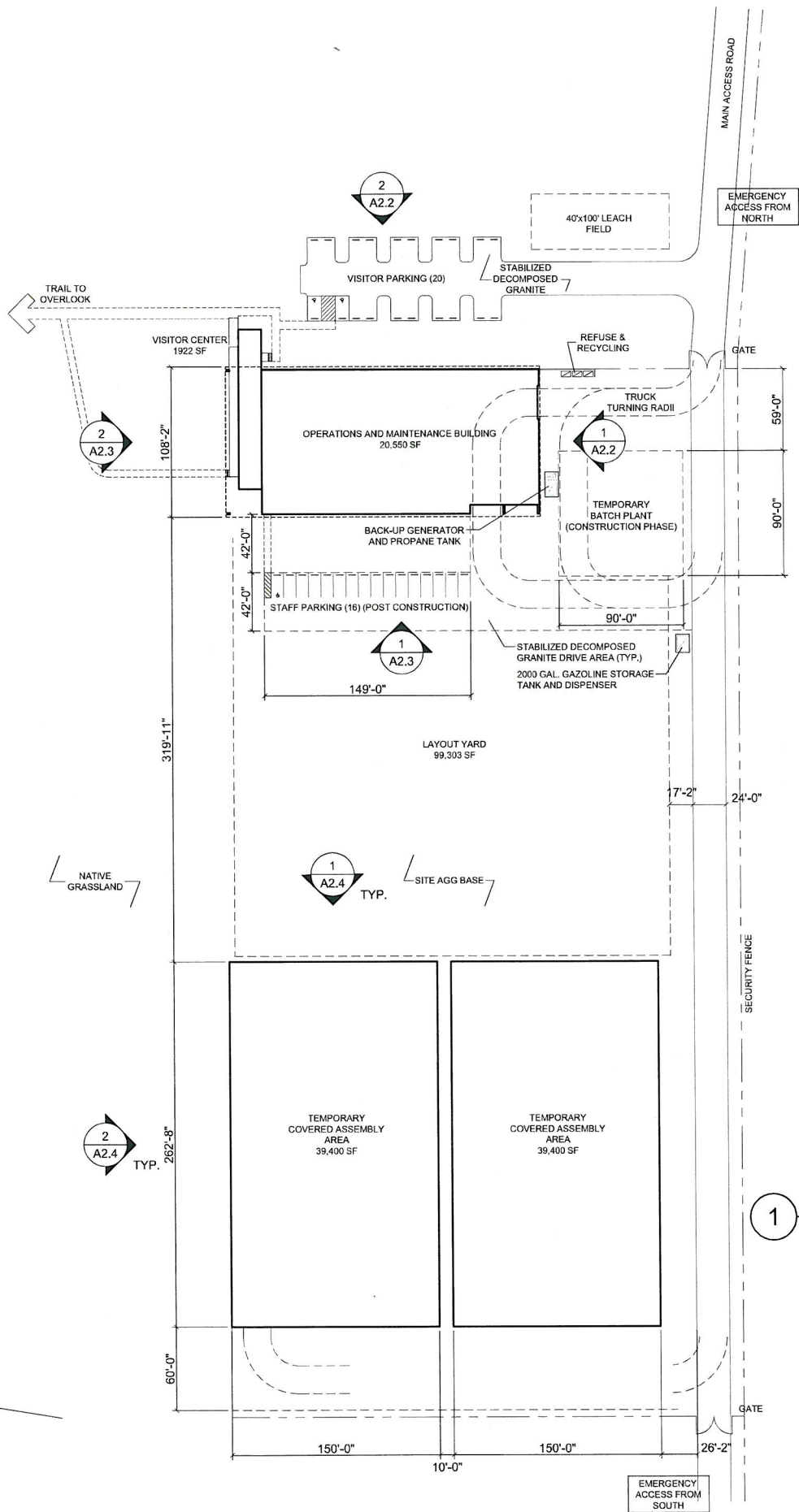
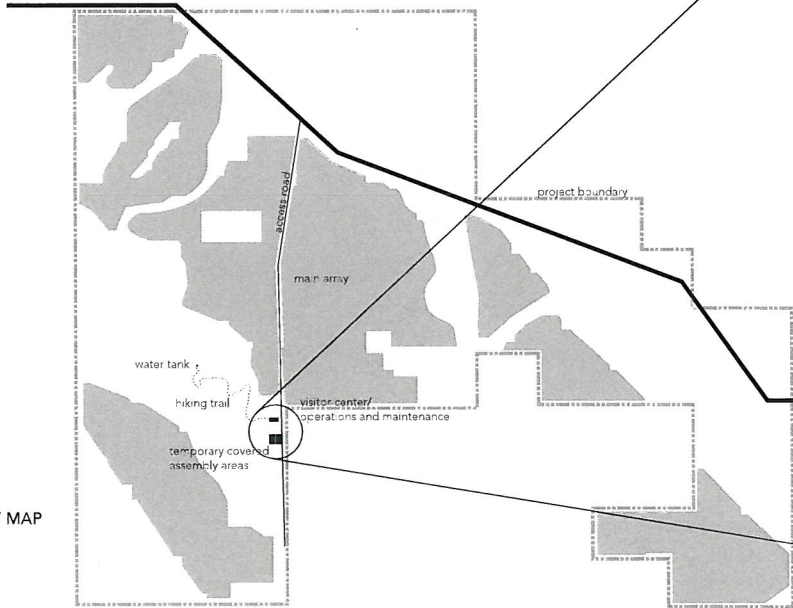




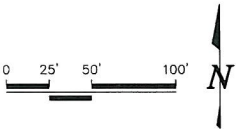
ARCHITEKTON

CALIFORNIA VALLEY
SOLAR RANCH
SAN LUIS OBISPO COUNTY, CA.
CONCEPTUAL ARCHITECTURAL
SITE PLAN

REVISIONS:		
REV	DATE	DESCRIPTION
1	05/04/09	PROJECT UPDATE
PROJECT		08145
DATE DRAWN		01.14.09
DRAWN BY		ETV
SHEET		
A1.0		
42 OF 51		



1 ENLARGED SITE PLAN
Scale: 1" = 50'-0"



Visitor Center

room occupancy	gross sf	occupant load
Exhibit space (a)	1484 sf	
mercantile occupancy*	1:30 sf	50 people
Unisex toilet (b)	75 sf	
accessory space		
Janitor closet (c)	75 sf	
accessory space		
Office (d)	150 sf	
office occupancy	1:100 sf	2 people
Storage room (e)	69 sf	
accessory space	1:300 sf	1 person
IT room (f)	69 sf	
accessory space		
*nearest occupancy type to intended usage		
TOTAL OCCUPANCY		53 people

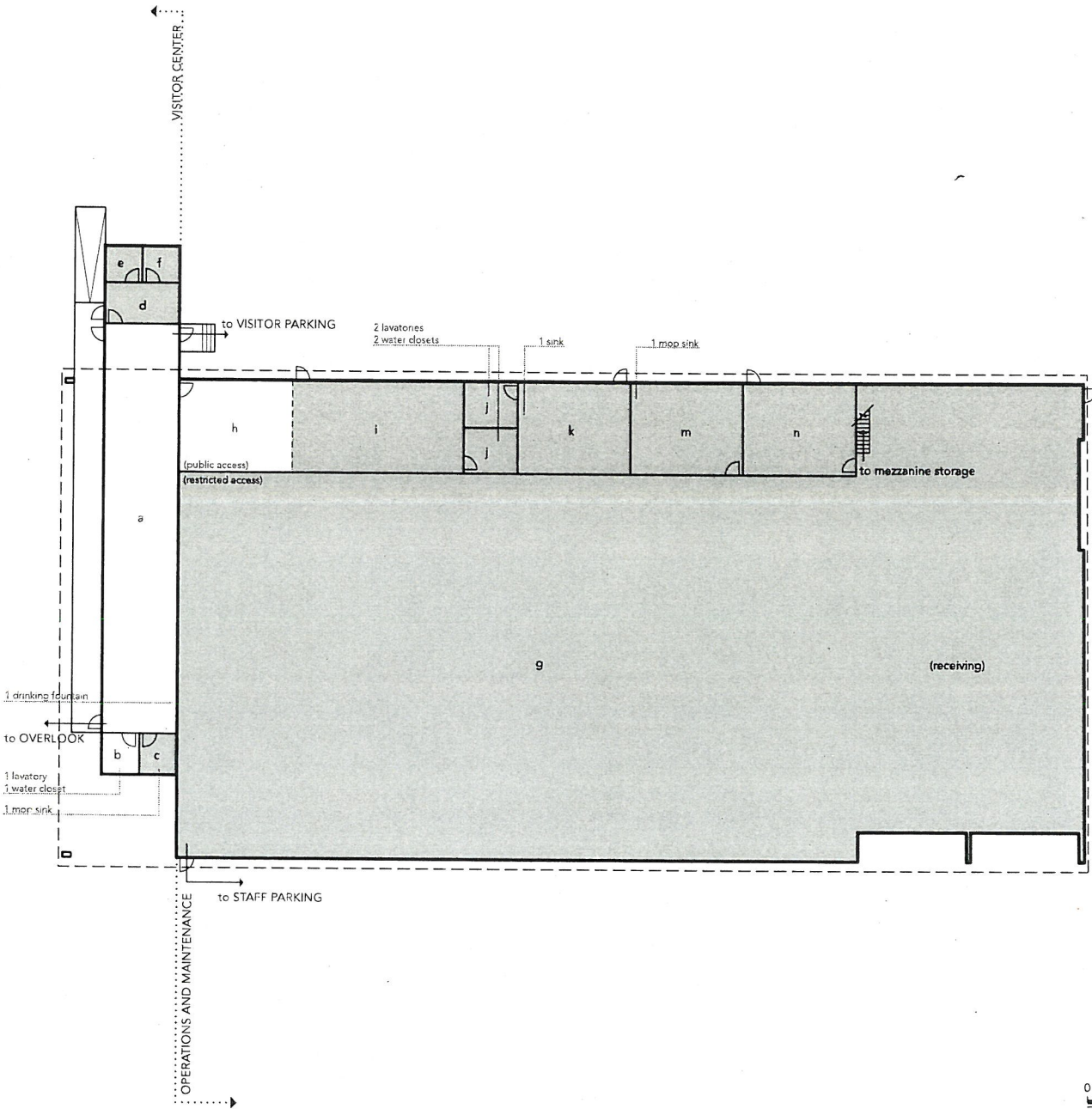
parking required		
Exhibition facility	1484 sf	
1 space/150sf of exhibit floor	10 spaces	
Office	288 sf	
1 space/400sf	1 space	
TOTAL PARKING REQUIRED		11 spaces

Architectural Narrative

The architectural experience of the site begins with a rhythm established along highway 58, as the lines of vineyards to the west slowly fall away and are replaced by the measured landscape of the solar field. Turning off of the pavement, the array parts and an access road flows into the mechanical heart of the project, guided gently downhill by a natural swale through a sea of trackers.

At the termination of this axis lie the only buildings on the site, situated behind a grove of desert willow trees that are sustained by a greywater system. Moving from the shaded parking, one passes the operations and maintenance facilities- a clean, efficient structure clad in simple materials opening towards the north for natural daylight and ventilation. At the west end of this enclosure, the small volume of the visitor center peeks out from beneath the protective shelter of the O+M roof, hovering slightly above the plain as if to avoid any more trespass than is necessary onto this environment. The visitor center itself would be manufactured off-site to reduce construction waste and minimize materials transportation, with service functions centered around a large exhibition space looking out over the former gypsum mine-- a remnant of past ecological abuse now used to retain and filter storm runoff from the site.

As the path leaves the visitor center, it crosses over a wash and leaves the remediated quarry to enter into the rolling hills that typify the landscape. On the crest of the hill, a bosque of trees becomes a natural beacon, drawing the path around a ridge and away from the main array while promising a cool respite on the climb up the hill to the overlook. At the foot of a water tank-- an iconic symbol of habitation recognizable throughout arid regions, shaded seating provides a panoramic view of the tracker field and offers a new and poetic perspective on the potential future of alternative energy projects.



Operations and Maintenance Facility

room occupancy	gross sf	occupant load
Open hanger (g)	17,550 sf	
warehouse occupancy	1:500 sf	36 people
Receiving/Conference (h)	500 sf	
accessory space	1:100 sf	5 people
Office (i)	850 sf	
office occupancy	1:100 sf	9 people
2 Unisex toilets (j)	150 sf	
accessory space		
Break room (k)	500 sf	
office occupancy	1:100 sf	5 people
Storage (m)	500 sf	
accessory space	1:300sf	2 people
Office (n)	500 sf	
office occupancy	1:100 sf	5 people
TOTAL OCCUPANCY		62 people

parking required		
Warehouse	17,550 sf	
1 space/2000sf (up to 10,000sf)	5 spaces	
1 space/5000sf (after 10,000sf)	2 spaces	
Office	3000 sf	
1 space/400sf	8 spaces	
TOTAL PARKING REQUIRED		15 spaces



ARCHITEKTON

CALIFORNIA VALLEY
SOLAR RANCH
SAN LUIS OBISPO COUNTY, CA.
CONCEPTUAL
FLOOR PLAN

REVISIONS:		
REV	DATE	DESCRIPTION
1	05/04/09	PROJECT UPDATE
PROJECT 08145		
DATE DRAWN 01.14.09		
DRAWN BY ETV		
IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE		
SHEET		
A1.1		
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ARCHITEKTON

CALIFORNIA VALLEY
SOLAR RANCH
SAN LUIS OBISPO COUNTY, CA.

O&M AND VISITOR CENTER
ELEVATIONS I

REVISIONS:

REV	DATE	DESCRIPTION
A	05/04/09	PROJECT UPDATE

PROJECT 08145

DATE DRAWN 01.14.09

DRAWN BY ETV

0 2' 1'

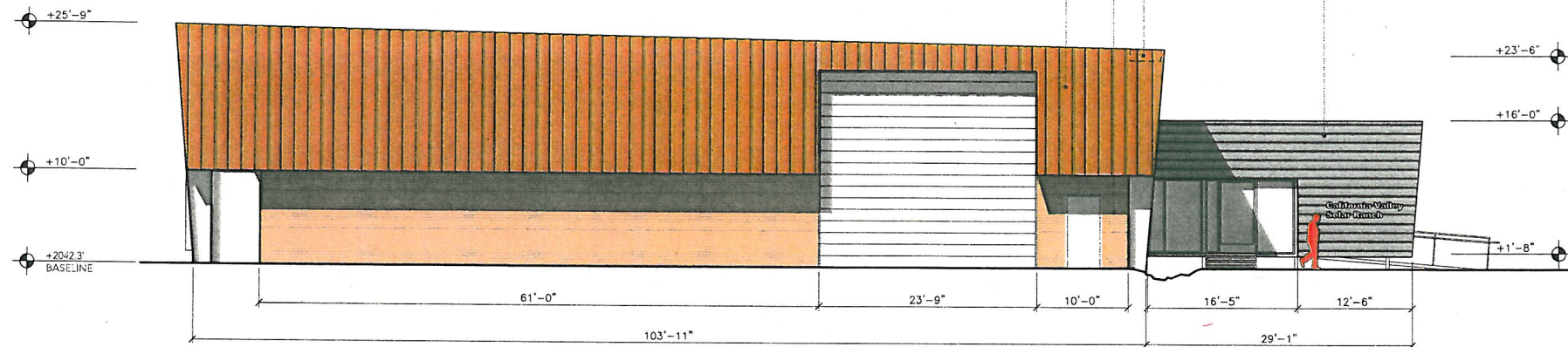
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SHEET

A2.2

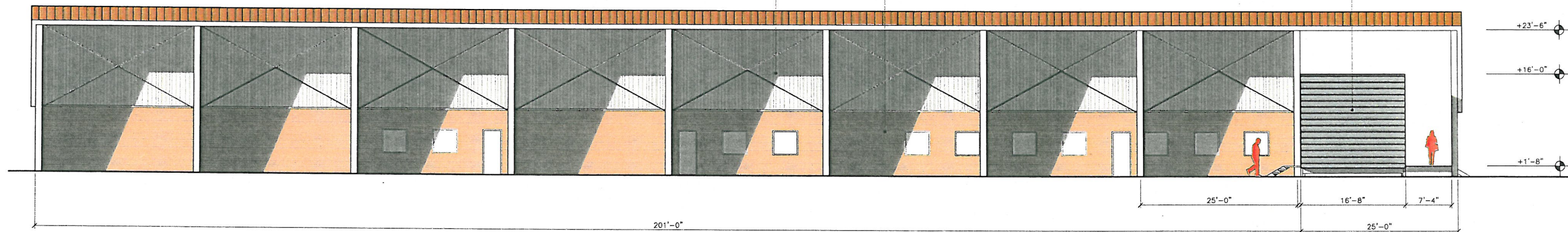
44 OF 61

zinc cladding
gutter draining to cistern
corrugated metal siding
standing seam metal roof

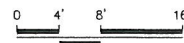


1 EAST ELEVATION
Scale: 1/8"=1'-0"

zinc cladding
corrugated metal siding
translucent polycarbonate



2 NORTH ELEVATION
Scale: 1/8"=1'-0"





ARCHITEKTON

CALIFORNIA VALLEY
SOLAR RANCH
SAN LUIS OBISPO COUNTY, CA.

O&M AND VISITOR CENTER
ELEVATIONS II

REVISIONS:

REV	DATE	DESCRIPTION
1	05/04/09	PROJECT UPDATE

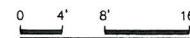
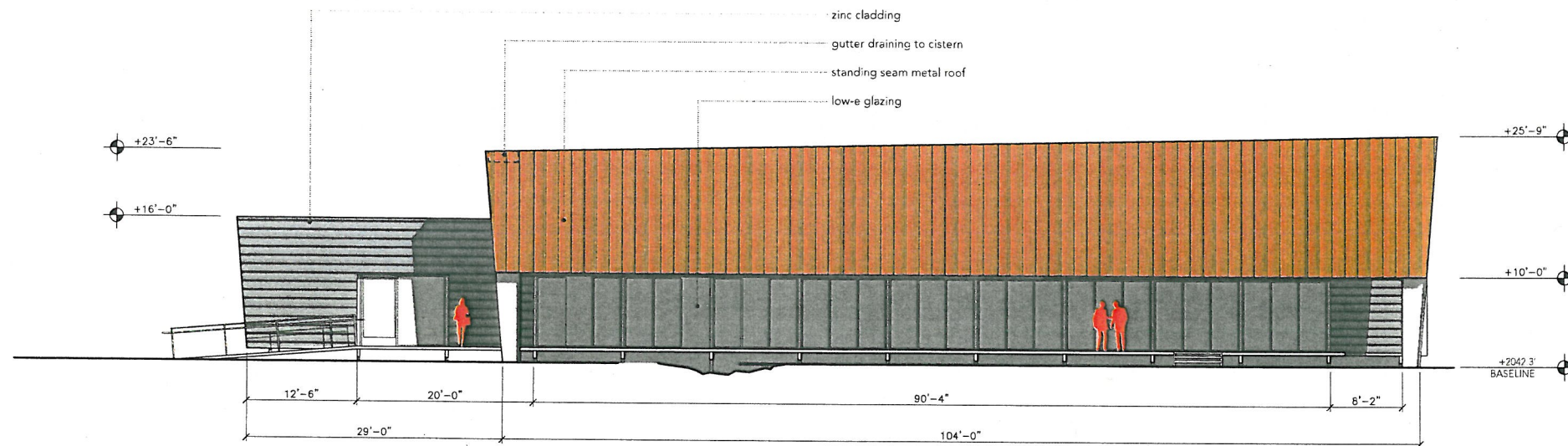
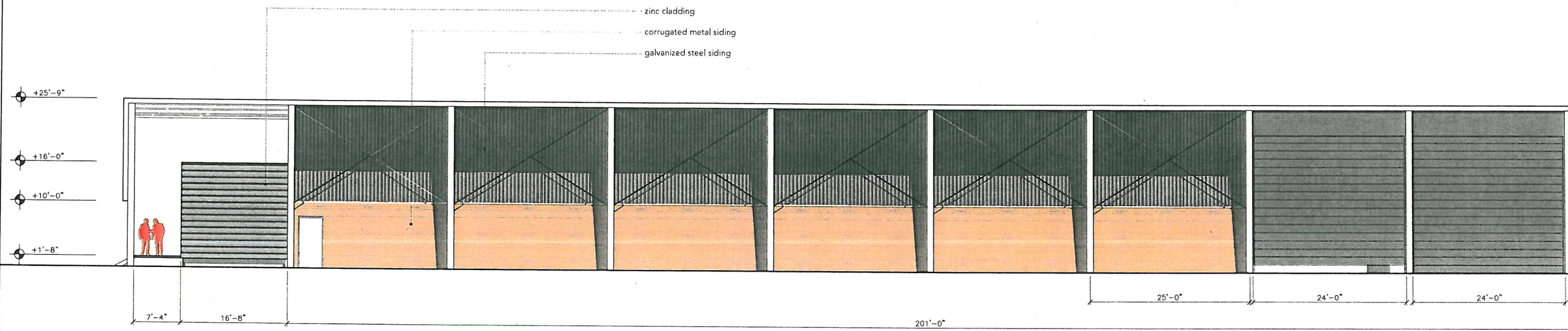
PROJECT	06145
DATE DRAWN	01.14.09
DRAWN BY	ETV



IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE
SHEET

A2.3

45 OF 61

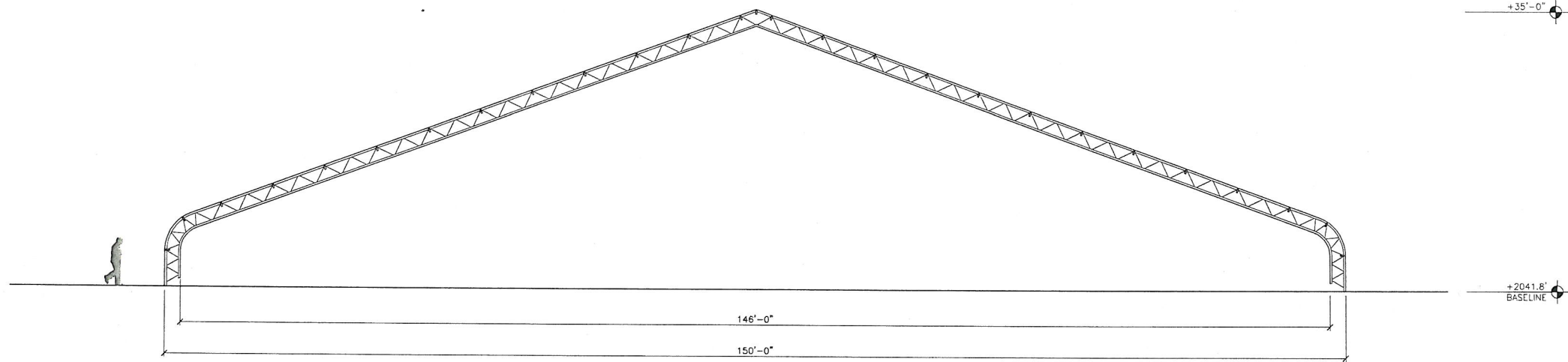




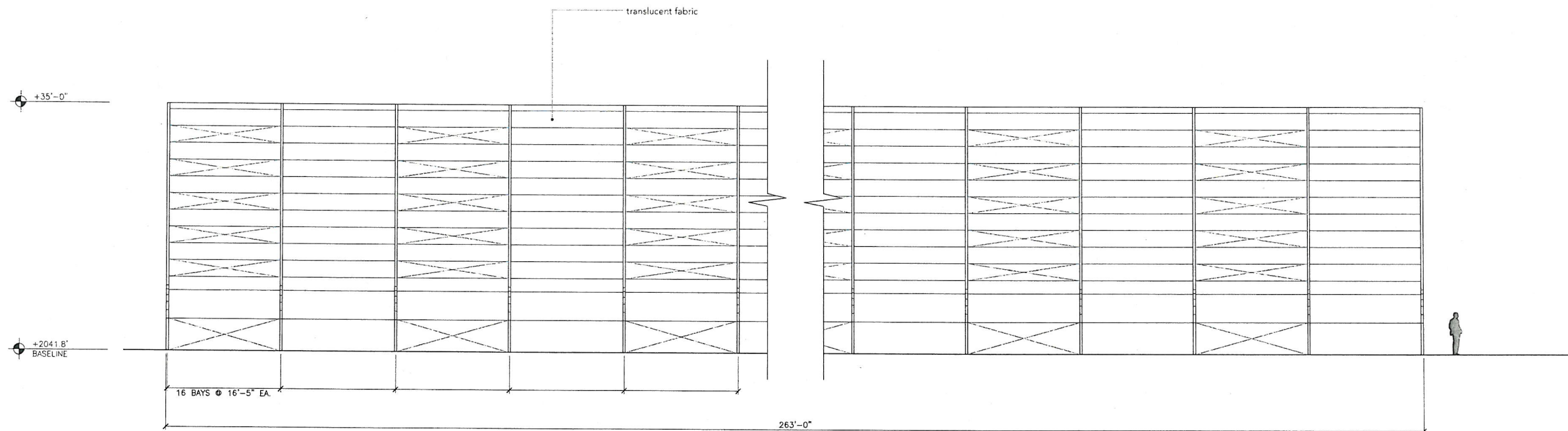
ARCHITEKTON

CALIFORNIA VALLEY
SOLAR RANCH
SAN LUIS OBISPO COUNTY, CA.
TEMPORARY COVERED ASSEMBLY
AREA ELEVATIONS

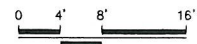
REVISIONS:		
REV	DATE	DESCRIPTION
1	05/04/09	PROJECT UPDATE
PROJECT		08145
DATE DRAWN		01.14.09
DRAWN BY		ETV
0 4' 8' 16'		
IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE		
SHEET		
A2.4		
46 OF 61		

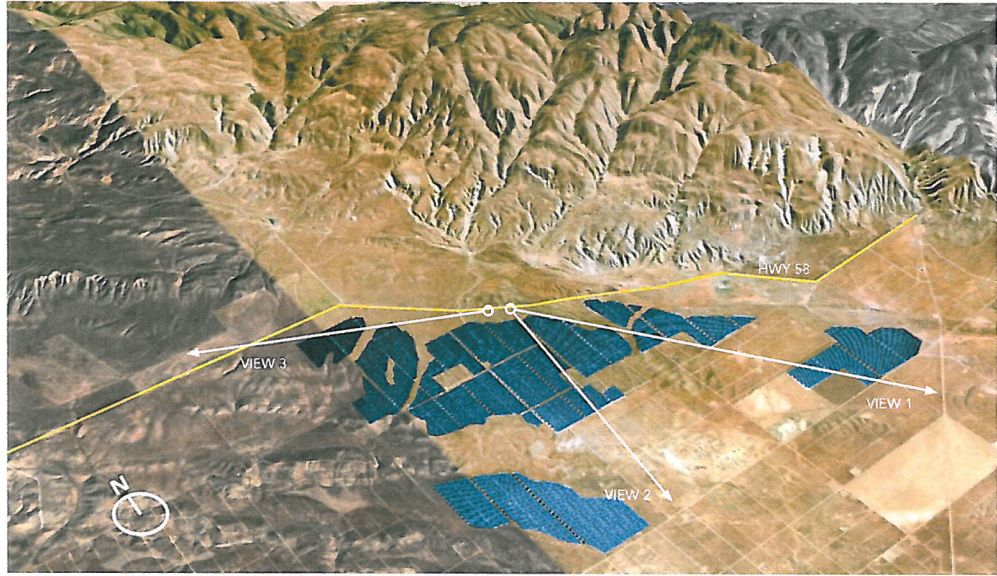


1 TEMPORARY COVERED ASSEMBLY AREA
Scale: 1/8" = 1'-0"



2 TEMPORARY COVERED ASSEMBLY AREA
Scale: 1/8" = 1'-0"





SITE MACRO CONTEXT
LOCATIONS OF VIEWS STUDIED



ARCHITEKTON

CALIFORNIA VALLEY
SOLAR RANCH
SAN LUIS OBISPO COUNTY, CA.

VIEWSHED EXHIBIT

REVISIONS:		
REV	DATE	DESCRIPTION
1	05/04/09	PROJECT UPDATE
PROJECT 08145		
DATE DRAWN 01.14.09		
DRAWN BY ETV		
0 1/2" 1"		
IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE.		
SHEET		
A3.0		
47 OF 61		



ARCHITEKTON

CALIFORNIA VALLEY
SOLAR RANCH
SAN LUIS OBISPO COUNTY, CA.

CONCEPTUAL
LIGHTING PLAN

REVISIONS:

REV	DATE	DESCRIPTION
A	05/04/09	PROJECT UPDATE

PROJECT	08145
DATE DRAWN	01.14.09
DRAWN BY	ETV

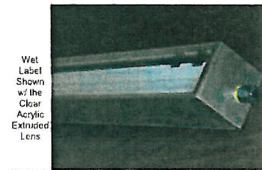
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IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE
SHEET

A4.0

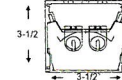
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fixture	mount height	length	lamp	shielding	mount	finish
A	+9'-0" AFF	4'	(S) standard T5	(B) cut-off baffle	H1	(B) satin black
B	+22'-0" AFF	12'	(D) 2 T5 lamps	(B) cut-off baffle	C	(B) satin black

D3 Series



Project Type
accolade³
Direct Suspended/Wall Mount Luminaire



Housing: 60% recycled aluminum. Canopy: Square or round. Suspension: 4ft 1mm diameter stainless steel aircraft cable w/ fully adjustable grippers and locking device. Powercord: 5' Plastic coated 5-braided metal, flexible cord. Finish: Powder Coated. UL Wet Location Approved	
SPEC	NOM.
Length	2' 2' Mount not available
Length	3' 3' 4' 4' 6' 6' 8' 8' 9' 9' 12' 12'
Length	Well Location is not available for row configurations.
Lamping	5 (1) Standard T5 lamp H (2) Standard T5 lamps in cross section D (2) Standard T5 lamps in cross section O (2) T5HO lamps in cross section 2 Staggered - Standard T5 lamps 4 Staggered - T5HO lamps 3 37 watt MR16 5 50 watt MR16 7 75 watt MR16 8 20 watt MiniStar Axial 9 35 watt MiniStar Axial
Voltage	Universal Voltage 120 - 277V 1 120 Volt - specify when dimming 2 277 Volt - specify when dimming 3 347 Volt
Down Light Shielding	P 1/2" parabolic louvre (1 lamp only) W 1/2" parabolic louvre (2 lamp only) T 2 Lamp Parabolic Louvre (2 lamp only) B Cut off blade baffle - standard color satin black
Options	Wet Label Lenses: A Clear polycarbonate acrylic diffuser L LeESe™ specular screen print on diffuse acrylic F HTLO™ high transmission lamp obfuscating lens RA 1/2" Regressed Lens + LeESe™ RL 1/2" Regressed Lens + LeESe™ RF 1/2" Regressed Lens + HTLO™ M MR16 or MiniStar Closed Plate (Indicate Qty Lamps) MA MR16 or MiniStar Closed Plate Adjustable (Indicate Qty Lamps) C Custom distribution - consult factory
Mounting	R Mounting directly against wall M1 Window Mullion Mount Blocks - 1' deep M2 Window Mullion Mount Blocks - 2' deep M3 Window Mullion Mount Blocks - 36" deep H1 Horizontal Wall Mount Setoff Bracket - 1' deep H5 Horizontal Wall Mount Setoff Bracket - 1/2' deep F Surface Mount J Span Mount (consult factory) A Castilever as per specification C Custom as per specification
Finish	T Satin White 1000-WH08 W Satin White 1000-WH08 L Gloss White 1000-WH11 B Satin Black 1002-BK08 E Textured Satin Eggshell White 1002-WH15 A Anodized - Specify color D Other existing powdercoat color - Choose from Cardinal Color Guide or specify RAL C Custom manufactured color - Consult factory
Options	D Dimming - Specify manufacturer E Emergency - Specify luminaire # required F External T5 only M Multi-Circuit N New York City Code R Right Endcap Feed L Left Endcap Feed K Natrium (Camp Location) - Use lens for downlight shielding W Wet Label - Use lens for downlight shielding Occupancy/Daylight Sensor

Quantity	Series	Length	Lamping	Voltage	Down Light Shielding	Mounting	Finish	Options
	D3							

Refer to Specification and Installation Guides in the catalog or on our website for more details.

112 g h t 2625 La Miranda Drive Visio CA 92081 PH 760.727.6277 FAX 760.727.7095

Full cut-off light fixture to comply with section 22.10.060 of the County Code and section 1006 of the California Building Code for exit lighting. (typical)

Given the relatively prominent location of the water tank, necessitated by pragmatic demands, this element will be painted to blend in with the surrounding grasslands. The color was chosen based on values taken from site photographs, which yielded a consistent tone for grasses in the mid to distant range.



galvanized transmission rendered on site

ALTERNATIVE MATERIAL:

The standard color for steel transmission poles is a galvanized finish. The existing high voltage transmission lines in the area are galvanized steel.



galvanized steel power poles
Munsell value 4.50P 7.14/0.02



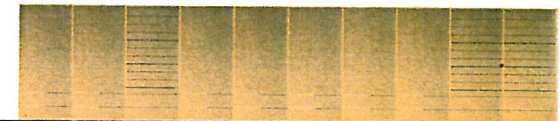
corten transmission lines rendered on site

PROPOSED MATERIAL:

In keeping with the prevailing material palette of the site, the steel poles of the transmission lines can be left to form a protective rust. This gives the poles a darker, less lustrous finish, that may have less of an industrial connotation, particularly in their rural setting. They would be closer in appearance to the wooden power lines currently traversing the Valley.



rusted steel power poles
Munsell value 8.92YR 2.65/3.38

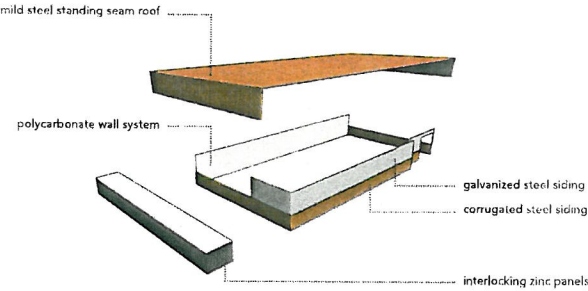


assembly area elevation

One of the two standard fabric colors offered for the pre-engineered assembly structures to be located on the site, this color is typically used on military and other government applications which are intended to blend into desert contexts.



The materials selection for the Operations Facility and Visitor Center of the California Valley Solar Ranch project will help determine both on the aesthetic and the environmental impacts of the facility on the Carrizo Plain. In an effort to provide a sustainable design, we have sought out recycled materials that will not require additional paint or finishes, greatly reducing the chemical footprint of the project. While they are all durable materials that will last the lifespan of the building, these products can easily be recovered and recycled when the Solar Ranch is decommissioned. The prolific use of steel, a widely available material, will allow the materials to be sourced locally, reducing transportation footprint of the project.



The largest element of the building, although perhaps not the most visible, is the roof. Acting as a giant shell, the roof wraps over the entire structure and folds down on the east and west elevations to shield the interior spaces from harsh sun angles. This surface is the primary determinant of the passive thermal performance of the building. Although a white roof would offer preferable thermal performance, it would be incompatible with the aesthetic intentions of the project.

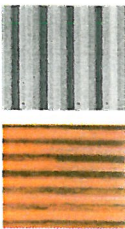
Unfinished cold rolled steel was selected as a recycled material that requires no additional finishing process or maintenance. By selecting an extrusion with deep flutes, the surface is able to partially shade itself, and the greater surface area increases the emissivity of the roof (already quite high for metal roofs). Initially a charcoal gray, this material will weather quickly and pick up subtle shades of brown, purple, and orange; meeting the requirements for aged SRI value specified in section 143 of the California Energy Code.



The majority of the siding on the warehouse space will be composed of two different types of corrugated metal paneling. The intention of using steel is to create a durable, recycled skin that does not require painting. The volume of the building has been broken down into two horizontal striations which will have different material characteristics. The upper half will be galvanized; this lighter layer visually separates the darker roof from the base, dematerializing the mass of the building from a distance. Although initially a somewhat lustrous material, the zinc used in the galvanization process quickly oxidizes and the metal takes on a duller character. The lower half of the facade is a richer and more subtle texture: the profile of the corrugations round out and the material is left to patina into a dark orange, softening the transition to the ground and visually blending with its context.

The north facade of the building is mostly translucent polycarbonate. To reduce energy usage and meet the daylighting requirements for warehouses required by section 143(c) of the CEC, light is brought in through the protected northern exposure. Polycarbonate wall systems are ideal in this application because they allow for allowing light transmittance while providing a high degree of thermal performance. Plastics also can be sourced from recycled materials, and can be reused or recycled when the building is taken down. Although a very light color is required to provide effective daylighting, this part of the building is almost perpetually self-shaded, making the material less reflective.

The visitor center takes on a more refined character while fitting in with the rest of the building. Zinc is used for the siding and offers a high quality metal finish that develops a warm gray patina which gives the material its long lifespan and exceptional durability without maintenance or varnishes. It is also a fully recyclable product, making it an ideal choice for this project.



ARCHITECTON

CALIFORNIA VALLEY
SOLAR RANCH
SAN LUIS OBISPO COUNTY, CA.

MATERIAL BOARD

REVISIONS:		
REV	DATE	DESCRIPTION
1	05/04/09	PROJECT UPDATE
PROJECT 08145		
DATE DRAWN 01.14.09		
DRAWN BY ETV		
0 1/2" 1"		
IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE		
SHEET		
A5.0		
49 OF 61		